



Centre for Remote Imaging, Sensing & Processing (CRISP)
NUS Environmental Research Institute (NERI)
Division of Environmental Science & Engineering (ESE)

Second Announcement

7SEAS Third Meeting 7 – 8 May, 2009 7SEAS Technical Training Workshop 11 – 14 May, 2009 Singapore

The Seven SouthEast Asian Studies (7SEAS) is a comprehensive interdisciplinary atmospheric sciences program to study the interactions of air pollution with regional climate and meteorology, with emphasis on aerosol-cloud interactions. 7SEAS was initiated in 2006 through collaboration between scientists in various Southeast Asian countries and NASA's Radiation Science, Tropospheric Chemistry, Air Quality and Oceanography programs, as well as the Office of Naval Research (ONR), Office of Naval Research-Global (ONRG), and the US State Department.

The Third 7SEAS Meeting will be held in Singapore on 7 – 8 May 2009 at the Copthorne King's Hotel Singapore followed by a Training Workshop on 11 – 14 May 2009 at the National University of Singapore. The Meeting and the Training Workshop are co-hosted by the Centre for Remote Imaging, Sensing and Processing (CRISP), NUS Environmental Research Institute (NERI), and Division of Environmental Science and Engineering, all of the National University of Singapore (NUS).

Topics of discussion for the Meeting include:

- Presentations of research activities and air-quality measurements by 7SEAS participants;
- Status of regional deployment of scientific equipments (AERONET, MPLNET, Research Vessels etc.);
- Development of Aerosol Sampling Supersites;
- 7SEAS research plans for 2009 and 2010

Scientists and managers working in areas related to pollution control, meteorology, atmospheric chemistry/physics, remote sensing and field measurements are encouraged to participate.

A four-day technical training workshop will also be conducted after the meeting from 11 – 14 May 2008. The training workshop will focus on fundamental and applied remote sensing of aerosol and clouds, particularly on applications of MODIS atmosphere products (<http://modis-atmos.gsfc.nasa.gov/>). The Workshop will include lectures, discussions and hands-on exercises. A brief survey of ground measurement instrumentations such as AERONET and MPLNET and air sampling devices will also be covered. The Training Workshop will be especially suitable for students, technical workers and researchers who wish to use satellite remote sensing data in their works.

Interested participants should contact Dr Liew Soo Chin (sclicw@nus.edu.sg) or Dr Jeff Reid (jeffrey.reid@nrlmry.navy.mil) for further information. Details of the meeting venue, accommodation and meeting agenda will be sent out in the Second Announcement.

If you have not done so already, please complete the attached registration form and send by e-mail or fax to: Mr. John Tay, Email: crstcs@nus.edu.sg Fax: (+65) 6775 7717

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Meeting Venue:

Copthorne King's Hotel Singapore
403 Havelock Road
Singapore 169632

Technical Workshop Venue:

CSD Computer Laboratory
Physics Department
National University of Singapore

Supported by:

Malaysian Meteorological Department, Malaysia
Manila Observatory, the Philippines
National Central University, Taiwan
National University of Singapore, Singapore
National Aeronautic and Space Agency (NASA), USA
Naval Research Laboratory (NRL), USA
Office of Naval Research-Global (ONR-G), USA

7SEAS Third Meeting 7 – 8 May, 2009 Singapore

Tentative Schedule

Day 1 (7 May)

08:30 – 09:30	Registration
09:30 – 10:20	Welcome and Opening Overview of 7SEAS activities
10:20 – 10:40	Coffee Break
10:40 – 12:20	Presentations by participating Institutions/Agencies/Laboratories. 20 min. on research activities, what exactly they want to achieve and if they have a working plan, how they hope to go about it. Or, what they need from the team.
12:20 – 14:00	Lunch
14:00 – 15:40	Presentations by participating Institutions/Agencies/Laboratories.
15:40 – 16:00	Coffee Break
16:00 – 18:00	Discussions
19:30	Welcome Dinner

Day 2 (8 May)

09:00 – 10:20	Status of regional deployment of scientific equipments (AERONET, MPLNET, Research Vessels etc.)
10:20 – 10:40	Coffee Break
10:40 – 12:20	Discussion: Development of Aerosol Sampling Supersites;
12:20 – 14:00	Lunch
14:00 – 15:40	Discussion: 7SEAS research plans for 2009 and 2010
15:40 – 16:00	Coffee Break
16:00 – 18:00	Wrap-up and Closing

7SEAS Technical Training Workshop 11 – 14 May, 2009 Singapore

Tentative Schedule

(Note: This schedule is still very tentative and is subject to change)

Day 1

- Introduction to MODIS
- From spectra to product
- Basics of aerosol remote sensing
- MODIS atmospheric products
- Hands-on exercises to explore MODIS imagery

Day 2

- Examining aerosol and cloud products
- Ordering data
- Introduction to AERONET
- Exploring online tools

Day 3

- Beyond MODIS
- Aeronet data synergy tools
- Introduction to air quality

Day 4

- Applications of satellite remote sensing products to air quality monitoring and research
- Technical tour to CRISP and ESE Laboratories

**7SEAS Third Meeting 7 – 8 May, 2009
7SEAS Technical Training Workshop 11 – 14 May, 2009
Singapore**

Information on Venue and Accommodation

7SEAS Meeting (7 – 8 May 2009)

Meeting Venue:

**Copthorne King's Hotel Singapore
(Marquis Room, Level 2)**

403 Havelock Road

Singapore 169632

Tel.: (+65) 6733 0011

(<http://www.millenniumhotels.com.sg/copthornekingssingapore/>)

Lunch will be provided with a choice of Penang Buffet or Chinese Set at the hotel restaurants. Special arrangements will be made for participants who have indicated their dietary preferences in the registration form. A welcome dinner hosted by CRISP, NERI and ESE will be held on the first day (7 May).

Rooms have been blocked at **Copthorne King's Hotel**, the meeting venue, at a rate of S\$175nett (~US\$117) per room per night especially for this meeting. The rate includes breakfast, unlimited broadband internet access, and free upgrade to deluxe room. The rate is applicable to participants of this meeting, regardless of their arrival and departure dates.

It is convenient to travel from Changi Airport to Copthorne King's Hotel by taxi. The fare is approximately S\$20 inclusive of airport surcharge. Additional charges may apply (e.g. midnight and peak hours surcharge, ERP tolls). The trip will take about 25 min.

Please complete the Hotel Reservation Form for 7SEAS Meeting and submit to the hotel directly by fax or email before **17 April 2009.**

Please read the terms and conditions on the reservation form.

Copthorne King's Hotel Singapore

Sales Manager: Adriana Nadine Reyne

Fax: (+65) 6235 1462

DID: (+65) 6318 3102

Email: adriana.reyne@copthornekings.com.sg

If you are attending both the 7SEAS Meeting and Training Workshop, you may choose to continue staying at the Copthorne King's Hotel for the duration of the Workshop. Please indicate the appropriate check-out date on the reservation form for Copthorne King's Hotel.

Technical Training Workshop (11 – 14 May 2009)

Training Workshop Venue:

CSD Lab, Physics Department
Block S13 Level 4, Lower Kent Ridge Road
National University of Singapore

Rooms have been blocked at the **Santa Grand West Coast Hotel** located near the University campus for the duration of the Workshop. The promotional rate is S\$120nett (~US\$80) per night, inclusive of breakfast and internet access.

Please complete the **Hotel Reservation Form for 7SEAS Technical Training** and **submit to the hotel directly** by fax or email before **17 April 2009**.

Santa Grand West Coast Hotel

428, Pasir Panjang Road
Singapore 118769
Tel: (65) 6778 6788
Fax: (65) 6778 1066
Email: westcoasthotel@santa.com.sg
http://www.santa.com.sg/hotel_westcoast.asp

It is convenient to travel from Changi Airport to Santa Grand West Coast Hotel by taxi. The fare is about S\$25 inclusive of airport surcharge. Additional charges may apply (e.g. midnight and peak hours surcharge, expressway tolls). The trip will take about 30 minutes.

Participants attending both the 7SEAS Meeting and the Training Workshop may transfer to Santa Grand West Coast Hotel by taxi from Copthorne King's Hotel on Saturday or Sunday. The check-in time at Santa Grand is 2 pm. The taxi fare is about S\$9.00.

Directions from Santa Grand Hotel to Workshop Venue:

- Walk from the hotel along **Pasir Panjang Road** towards the traffic light.
- Turn right to **Clementi Road** and walk towards the **Kent Ridge Bus Terminal**.
- Continue along a pedestrian walkway up the slope to reach a **Campus Shuttle Bus Stop**.
- Take **Internal Shuttle Bus A2** (free of charge) and alight at the bus stop besides the **Sports Field**, opposite the **University Hall** (Admin Building).
- Cross the road and continue to walk to the **Physics Department Block S12**. Take the lift up to **Level 4** and follow the sign to the Workshop Venue at Block S13. Refer to the attached campus map for directions.

A CRISP's representative will meet Workshop participants at the lobby of Santa Grand West Coast Hotel on the first day of the Workshop (11 May 2009, Monday) at 8.30am to lead them to the Workshop.

Directions from Copthorne King's Hotel to Workshop Venue:

If you stay at Copthorne King's Hotel, the most convenient way to reach the NUS campus is by taxi. The fare is about S\$9 and takes about 25 minutes. Instruct the taxi driver to use the **AYE Expressway** and exit at **Buona Vista**. Go straight to **Lower Kent Ridge Road**. Stop at the 3rd bus stop along the road, besides **Block S12 Physics Department** opposite the **Sports Field** (see the attached map). Take the lift at S12, go up to **Level 4** and follow the sign to the Workshop Venue at Block S13.

Local Information

Taxi

(http://www.lta.gov.sg/public_transport/index_pt_taxi.htm)

All Singapore taxis are metered. Additional charges may be added to the metered fare for late night or peak hour trips, ERP charges and booking charges. You can get a taxi in many ways. Most passengers hail a taxi along the road or wait for one at a taxi stand where available. You may also wish to dial 6-DIALCAB (63425222 Land Transport Authority Taxi Booking hotline) to book a taxi. Most taxis accept credit card payment as an alternative to cash payment. Administrative charges apply.

EZ-Link Card

(<http://www.ezlink.com.sg/>)

EZ-Link card (a stored-value card) is the recommended mode of payment for bus and MRT train transport. The card can be bought at all TransitLink Ticket Offices, at bus interchanges and MRT stations.

Bus

(<http://www.transitlink.com.sg/>)
(<http://www.transitlink.com.sg/php/eguide/service-idx.php>)

The two main bus operators in Singapore are SBS Transit Ltd and SMRT Buses Ltd. For cash paying commuters, please check ahead for the correct fare and drop the exact fare into the farebox as no change will be given. Retain the ticket throughout the bus ride as proof of payment. Alternatively, fares can also be paid the cheaper and cashless way with the ez-link card on all SBS Transit and SMRT buses. Tap the ez-link card on the entry card reader located at the front entrance of the bus. When alighting from the bus, remember to tap the card again at the exit card reader.

NUS Internal Shuttle Bus Service

(<http://www.nus.edu.sg/oed/services/csd/transportation/internalShuttleBusService.htm>)

The NUS internal shuttle bus service provides free transportation within the NUS campus. You can connect to the public bus transport system at designated bus stops and bus terminals.

MRT Train

(<http://www.smrt.com.sg/trains/trains.asp>)

(http://www.sbstransit.com.sg/transport/trpt_nel_overview.aspx)

The MRT stations nearest to Copthorne King's Hotel are Orchard and Clarke Quay stations. Complimentary shuttle service is provided by the Hotel to the Orchard Road district and Clarke Quay MRT. Please check with the hotel management for the shuttle service timings.

The train stations nearest to Santa Grand Hotel West Coast are Clementi and Harbourfront stations. You can take Bus Service No. 183 (opposite the Hotel) to the Clementi station or Bus Services No. 10, 30, 143 (in front of the Hotel) to the Harbourfront MRT station.

Food

Singapore is the undisputed food haven for a variety of cuisines.

Copthorne King's Hotel Area: In addition to the restaurants within the Hotel, there are several dining places in the nearby Great World City Shopping Centre, and along the Singapore River (Robertson Quay, Clarke Quay, The Central Mall, Boat Quay). Zion Food Centre, within walking distance, has all the sumptuous local cuisines for your liking.

The Hotel provides shuttle service to the Orchard Road shopping district. Alternatively, you can take an 8-minute taxi ride from the Hotel, at approximately S\$5 (plus surcharges, if any).

Santa Grand West Coast Hotel Area: There are a number of eateries just besides the Hotel for your convenience. You may wish to take a bus ride to the nearby West Coast Plaza and West Coast hawker centre (Bus 30, 51, or 143 opposite the Hotel – 5 stops away) or The Village Centre at South Buona Vista Road (Bus 10, 30, 51, 143, 188, 200 in front of the Hotel – 9 stops away) for more choices.

Attractions around the Hotels

Copthorne King's Hotel – Orchard Road shopping district, Botanic Gardens, Tiong Bahru Shopping Plaza, Chinatown, Clarke Quay, City Hall shopping district.

Santa Grand West Coast Hotel – Great World City, Harbourfront Centre, Sentosa, Southern Ridges (9km chain of green, open spaces, spanning across several parks, including Kent Ridge Park, West Coast Park and Mount Faber Park)

Other Attractions Around Singapore – Refer to the Singapore Tourism Board Website (http://www.visitsingapore.com/publish/stbportal/en/home/sub_landing_pages/What_To_See0.html)

Currency Exchange Rates

(<http://www.dbs.com/ratesonline/Pages/fxbra.aspx?hasRedirected=true>)

The unit of Singapore currency is the Singapore Dollar (SGD). The exchange rate is approximately, 1 USD = 1.51 SGD.

Money Changers

Apart from banks and hotels, money can be changed wherever the sign "Licensed Money Changer" is displayed. Most shopping complexes have a licensed money changer. Visitors are discouraged from changing money with unlicensed money changers.

Electricity

Singapore voltage is 220-240 volts AC, 50 cycles per second. On request, most hotels will provide transformers to visitors with electrical appliances of a different voltage, such as 110-120 volts, 60 cycles per second. When shopping for electrical appliances, do remember to check the voltage of the item against the acceptable voltage in your home country. The power plugs used in Singapore are of the three-pin, square-shaped type.



Water

It is safe to drink water straight from the tap in Singapore. However, for those who prefer bottled mineral water, local supermarkets and grocers usually carry a sizeable selection.

Tipping

Tipping is not practised as most hotels and restaurants in Singapore already levy a 10% service charge on customers' bills. Tipping is not a way of life in Singapore and is prohibited at the airport.

General Information on Visiting Singapore

Available at the official Visiting Singapore Web site:

(<http://www.visitsingapore.com/publish/stbportal/en/home.html>)